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FOR THE SECOND PART.

Change of declination during the	
half interval 2' 28" P. L.	1. 8631
Sun's declination 16° 21' log cotan. +	10. 5326
	<u>12. 3957</u>
Horary angle 52' 30' log. cotan. —	9. 8850
P. L. —	<u>2. 5107</u> = 0' 33" = 2" 12" in

time, being the second part of the equation, and deductive by the rule,

APPLICATION.

Apparent time of the sun's center on } the meridian by equal altitudes nearly }	12 ^h 2' 22" 0 ^m
First part of the equation	+ 10 ^m 24 ^m
Second do.....—	2. 12 + 8. 12
Sun's centre on the meridian	<u>12. 2. 30. 12.</u>

No. V.

Account of an extraordinary flight of meteors (commonly called shooting of stars) communicated by Andrew Ellicot, Esq. as extracted from his Journal in a voyage from New-Orleans to Philadelphia.

Read 16th January, 1801

“ NOVEMBER 12th 1799, about three o'clock, A. M. I was called up to see the shooting of the stars (as it is commonly called.) The phenomenon was grand and awful, the whole heavens appeared as if illuminated with sky-rockets, which disappeared only by the light of the sun after day break. The meteors, which at any one instant of time appeared as nume-

rous as the stars, flew in all possible directions, except from the earth, toward which they all inclined more or less; and some of them descended perpendicularly over the vessel we were in, so that I was in constant expectation of their falling among us. My thermometer which had been at 86° of Farenheits scale for four days, fell to 56° about 4 o'clock A. M. and nearly at the same time the wind shifted from the South to the N. W. from whence it blew with great violence for three days without intermission. We were in latitude 25° N. and S. E. from Kay Largo, near the edge of the Gulph Stream."

I have since been informed that the above phenomenon extended over a large portion of the West India islands and as far North as Mary's in latitude $30^{\circ} 42'$ where it appeared as brilliant as with us off Cape Florida.

No. VI.

Improved method of projecting and measuring plane Angles by Mr. Robert Patterson communicated by Mr. Andrew Ellicott.

Read 6th March, 1801.

SIR,

THE laying down, and measuring of plane angles, constitute so great a part of practical geometry, that any attempt to render this operation more easy and accurate than by the line of chords, or any other method now in common use, will not, I presume, be deemed altogether unimportant.

The lines of chords on our common scales are in general very inaccurately divided, and even if we suppose the divisions ever so exact it will still be impracticable to take off the measure of an angle to greater accuracy than a half or third of a degree at most; as it is impossible to apply either the nonius or diagonal method of subdivision to a line of unequal parts.

But in the method that I am about to propose a line of equal parts only is used, and therefore the divisions and subdivisions may, by either of the above modes, be made as minute and accurate as can be desired.